Commercial Innovations and Challenges:

A Model for Local Government Recycling and Waste Reduction

Overview

Communities throughout California are faced with the requirement to reduce waste going to disposal by 50 percent. This goal was mandated by the passage of the Integrated Waste Management Act (AB 939, Sher, Chapter 1095, Statutes of 1989 as amended [IWMA]).

In nearly all California communities, industrial, commercial, and institutional (ICI) sources generate about half of the waste stream. In some communities the figure is close to two-thirds. Clearly reduction in these waste streams must be a major priority of responsible local planners.

As both the public and private sectors pay increasing attention to ICI waste reduction, communities have developed and implemented innovations to facilitate reduction efforts. Some challenges have arisen in this process.

Program Charactaristics

Characterizing the ICI Waste Streams

ICI waste streams fit into the following categories:

Single Unit Industrial (Manufacturing). These sites will be large sources of waste with an easily traceable point source. Wastes generated at such sites generally fall into the following categories:

1. Process wastes. These can be materials such as plastics, metals, paper, etc., or process chemicals. If the wastes are uncontaminated, they fall into the category of preconsumer or prompt industrial. These wastes can either be returned to the production cycle or can be readily marketed as recyclable material. The process can contaminate the end waste, making reuse or recycling less possible and more costly.

2. Packaging. This includes both incoming materials and outgoing product. Cardboard and plastics (both rigid and film) will be most common with lesser amounts of glass, cloth, and other materials.

3. Office waste. This waste will be primarily white and color ledger grades, now commonly known as "office pack" to wastepaper markets. Contamination occurs with unacceptable paper (for example, carbons, blueprint) and non-paper (for example, food waste, pencil stubs, etc.).

4. Food and associated materials. Industrial plants often contain food service for their employees or designated dining areas and food and drink vending machine locations. These will be point sources of food and food serving and packaging wastes.

Independent and Chain Unit Commercial Wholesale. These sites are commonly distribution warehouses. Although they may be very large, waste generated may be relatively low if the operation is basically a transfer operation and/or if reusable shipping containers are used.

1. Packaging. This type of waste may increase with a repackaging operation. (See no. 2 above for types.) Department store distribution centers may also generate items such as metal and plastic hangers.

2. Damaged packages. Packages in warehouses will occasionally be damaged by water, collision with material handling equipment, collapse of storage columns, etc. These can sometimes be sold as distressed merchandise, or they can be discarded.

3. Office and food waste. These are minimal relative to the size of the facility.

4. Green landscaping waste.

Independent and Chain Unit Commercial Retail and Service. This category represents a very wide range of activities and sizes of

operation, such as a large department store or chain store like Target or Home Depot. These can be treated as single point sources for planning purposes. “Mom-and-pop stores” and medium-sized businesses are also included in this category. Smaller operations can be aggregated by prior design (for example, shopping mall, office building, business park) or by post planning (for example, downtown office corridor).

1. Packaging. All of these businesses will generate some form of packaging waste as described above.

2. Process waste. Type of waste will be site-specific depending on type of business.

3. Office waste. This will be more relevant in office-type businesses, but office waste will exist to some degree in nearly all business locations.

4. Green landscaping waste where applicable.

Construction, Renovation, and Demolition (C&D). This waste category is very significant in planning waste reduction but differs from the other categories in important ways. C&D recycling is occasionally present at all the other category sites as well. Because of its unique nature, C&D recycling will be characterized here regardless of where it takes place. Residential sites will also be included, since C&D recycling is subsumed under ICI wastes handling.

1. Construction waste. New construction waste is commonly comprised of:

a) Wood. This is substantial in single and some multifamily residential construction. Waste can approach 30 to 35 percent of input in the worst cases.

b) Gypsum wallboard. This, too, has a high waste percentage, often reaching 15 to 25 percent of input.

c) Wire and metal trim waste.

d) Insulation trim waste (fiberglass or plastic).

e) Non-wood siding and roofing waste. Commonly plastic or cement composite.

f) Packaging. Can be significant when appliances are delivered and installed.

g) Miscellaneous. Varies with specialty design elements.

h) Green landscaping.

2. Demolition. This will vary with the age and type of the structure to be demolished. Depending upon the age, there may be contamination to some degree by asbestos, lead paint, and other toxic and hazardous material. C&D recycling is most likely to produce the following materials:

a) Concrete, with or without rebar.

b) Brick, stone, stucco, and plaster.

c) Heavy steel, cast iron, galvanized steel, and iron pipe.

d) Copper pipe and insulated wire.

e) Wood, painted and unpainted.

f) Ceramic fixtures and tiles.

g) Various metal lighting and electrical fixtures.

h) Carpet, non-ceramic tiles, and linoleum.

i) Gypsum wallboard, clean, painted, or papered.

j) Glass.

k) Plastic siding, window sashes, and miscellaneous products.

l) Green landscaping.

3. Renovation. This activity is usually a combination of demolition and construction. Therefore, materials generated will not differ from the above.

Institutional. This includes a wide range of public and public-type institutions such as government office buildings, schools, public hospitals, clinics, penal institutions, libraries, parks, zoos, and museums.

1. Office waste (as described above).

2. Packaging (as described above).

3. Food and food packaging (as described above).

4. Plastic products. Significant in hospitals, clinics, and prisons.

5. Glass products. Significant in hospitals and clinics.

6. Green waste from landscaping.

7. Green waste and manures from parks and zoos.

ICI Material Markets

ICI waste reduction planning must include understanding and awareness of local market conditions, especially as it relates to materials that cannot be reduced or reused on site. In this regard, most California communities are fortunate in having significant domestic and export market options, particularly to the Pacific Rim and Latin America. Follows is a summary of ICI material markets:

Paper. Price may vary dramatically over time (usually in five-year cycles). However, domestic demand from mills in California and the Pacific northwest keeps the flow of recyclable paper grades on a steady course. Demand in foreign markets such as Mexico, the Pacific Rim, and increasingly in other parts of Latin America also contributes to a healthy market.

New grades such as office pack and curbside mix reflect the expansion of the marketplace. Research and development activity in the paper industry in recent years has resulted in an increasing capability to deal with paper as it is commonly collected.

Other Uses. Feedstock for cellulose insulation, animal bedding, and mulches continues to sustain modest niche markets. Growing interest in green building could have a significant upward impact on the cellulose insulation market.

Metals. These materials also boast strong domestic and export markets. Price varies over time, but movement remains generally stable. Domestic ferrous scrap demand is buoyed by a number of electric arc mini-mills in Oregon, Arizona, and Nevada. These mills can use 100 percent scrap charges. Export markets are also stable over time even when there are periodic disruptions.

Non-ferrous metals such as copper and aluminum are also strong over time, with normal price swings.

Plastics. Prompt industrial (preconsumer) batches of most types and grades are readily marketable, usually to domestic users. Postconsumer grades vary widely in their acceptability to either domestic or export markets, but pricing often is too low to be cost-effective. The California refund value (CRV) program primarily sustains PET bottle-grade plastic in both domestic and export markets. China is the primary buyer of U.S.-generated PET plastic. Manufacturers of plastic lumber are creating an increasing demand for feedstock, which is helping to sustain the high-density polyethylene (HDPE) bottle market. The low and linear low-density polyethylene (LDPE) films markets, to a lesser extent, also contribute some material for manufacturing these products.

In general, the plastics recycling industry is facing substantial barriers, except for an erratic and uncertain China market.

Wood and Green Waste. Wood—especially old growth and wood free from contamination—has market value as dimensional lumber. Wood that is clean, unpainted, and without chemical preservatives has use as a mulch or as an alternative fuel.

Can Fibre, a Canadian division of Kafus Industries, has recently opened a medium-density fiberboard manufacturing facility in Riverside, Calif. It will use 100 percent wood waste as feedstock.

Composted green waste is both sold and given to citizens and/or public agencies without charge. Uncomposted green waste is used in some communities as alternative daily cover in landfills.

Glass. The presence of glass bottle manufacturing and fiberglass insulation manufacturing in California results in stable, if not lucrative, domestic markets.

The export market is minimal but could develop over time.

Gypsum Wallboard. Selected manufacturers of wallboard provide a limited take-back market if the board is from new installation trim. No old, painted, or papered board is allowed. The material is ground and sold as an agricultural soil supplement. Some companies have developed processes for recycling this material, but they do not yet exist in California.

Concrete, Stone, Brick, Asphalt, Ceramics. Strong domestic outlets exist for converting concrete and other crushable material to aggregates of different sizes. These processes carry a lower tip fee than landfilling.

Asphalt can be commonly recycled into the new pavement structure as it is taken up and reapplied. Brick is either salvageable as whole brick or crushable into aggregate.

Miscellaneous. Modest markets are present in different parts of the state for used carpet, carpet underlayment, and tires.

Selected Government Programs for Commercial Waste Reduction

California Integrated Waste Management Board Program Elements

Recycling Business Assistance Team (R-Team). This resource network offers a variety of services to help recycling-based businesses start and prosper in California. The R-Team works in partnership with other agencies and programs to provide comprehensive services, including the following:

Technical assistance:

- Information on sources of secondary materials and processes for tires, plastics, paper, C&D materials, and composting.
- Information on laboratories that can provide specialized product quality testing related to recycled-content products.
- Technical reports on materials and processes.
- Fact sheets on material markets, technology, and organizations.
- Referrals to other sources of technical information as well as to other State and federal programs.

Marketing assistance:

- In coordination with the CIWMB Buy Recycled program, the R-Team helps businesses find sources for recycled-content products. The CIWMB maintains a database of recycled-content products that can be searched by material type, geographical area, and other search capabilities.

Financial assistance:

- The R-Team assists businesses in recycling market development zones (RMDZ) with information on the low-interest loan program.
- The R-Team provides permitting assistance through the Northern California Business Environmental Assistance Center (BEAC) and Cal/EPA permit assistance centers, linking businesses with appropriate State or local contacts.
- The R-Team provides siting assistance through RMDZ points of contact and other local economic development offices.

Recycling Market Development Revolving Loan Program. Provides low-interest loans to private businesses and local governments to increase diversion of solid waste from landfills and to promote market demand for secondary and postconsumer materials.

General eligibility:

- Project must be located in an RMDZ.
- Funding at a maximum of 75 percent of costs up to a maximum of $2 million.
- Project must result in diversion of solid waste from landfill.
- Funds for businesses and nonprofits can be used for machinery and equipment, working capital, real estate, leasehold improvements, and refinancing of onerous debt.
- Businesses and nonprofits can use funds for waste prevention, reuse, recycling, or transformation (for example, pyrolysis or combustion).

California Materials Exchange (CalMAX). CalMAX is an informational forum fostering the lawful exchange, reuse, and recycling of materials traditionally discarded by business and industry. A free bimonthly catalog lists materials wanted and materials available categories. Information provided through CalMAX, its catalog, or its Web site is supplied by the listing party. (CalMAX is not responsible for problems arising from hazardous, potentially hazardous, or otherwise regulated material.)

Business Kits. Resource materials include fact sheets, a business waste reduction guide, sample policies, plans, outreach materials, etc. Kits can be customized to meet special needs. They are distributed through participating local recycling coordinators and the Waste Prevention Information Exchange.

Waste Reduction and Assessment Training. CIWMB staff assists local governments, nonprofits, and business organizations in setting up workshops to train waste reduction coordinators on how to develop and implement a comprehensive waste reduction program. Staff provides training, educational materials, lists of potential speakers, and trainers.

Shipping and Distribution Partnership. This voluntary effort encourages businesses to adopt more efficient packaging and distribution systems that prevent waste, increase recycling, and increase the manufacture and purchase of packaging with recycled content.

Creating An Office Paper Reduction Campaign. This collection of information, materials, and resources is available for offices to use in creating office paper waste reduction programs. Customized work kits are available.

Landscape Waste Reduction. Targets landscaping waste through assistance in grasscycling, on-site composting, and low-waste landscaping.

Waste Prevention Information Exchange. Facilitates the flow of news, ideas, fact sheets, business case studies, sample guidebooks, reports, and videos among governments, businesses, nonprofits, and other interested parties. Provides a resource center and has staff for limited research.

Waste Reduction Awards Program (WRAP). Provides an opportunity for California businesses to gain public recognition for their outstanding achievements to reduce waste. Winners receive a certificate and a camera-ready logo that can be used on products, advertising, and promotional materials. In addition, the winners are posted on the CIWMB Web site and recognized in media releases.

For more information on CIWMB programs, see the Web sites on page 10.

King County, Wash., Department of Natural Resources Solid Waste Division

Business Assistance Team. Offers technical assistance on where to recycle materials and where to buy recycled-content products; provides general related educational material.

The business assistance team provides technical assistance in reducing packaging waste and industry-specific information related to using cost-effective packaging. The team provides case studies and other education materials and invitations to join roundtable discussions with industry peers.

Free technical assistance is available for construction sites, offices, manufacturing facilities, hospitals, and more.

Recycled-Content Paper For Less. The solid waste division provides information about a nonprofit recycled products purchasing cooperative.

Small Business Cooperatives. The division provides information about small business recycling cooperatives to overcome the difficulty that small business generators have in finding a recycler willing to serve them at reasonable cost.

Reusable Building Material Exchange. The solid waste division operates an online service at http://dnr.metrokc.govswd/ that provides a convenient way for contractors and home remodelers to exchange small or large quantities of reusable or surplus building materials.

Santa Clara Valley Manufacturing Group (SCVMG)

This group engages in a "cooperative effort with local government to identify and address major public policy issues affecting the economic health and quality of life in Silicon Valley." Organized in 1978, this group is primarily a business coalition. It serves as an important model of public-private cooperation. The SCVMG has a solid waste task force composed of both public and private participants. To the traditional 3R hierarchy of reduce, reuse, and recycle, they have added buy recycled and manufacture (using pre- and postconsumer materials).

Solid Waste Task Force. This task force was activated in the early 1980s to investigate how member companies could reduce waste entering Santa Clara County landfills. The members conducted a study in 1983–84 that concluded that 60 to 70 percent of the landfilled waste in the county was generated by commercial and industrial sources.

Before the passage of the IWMA in California mandating waste diversion from landfills, the group produced a "Guide to Commercial Recycling" that was updated most recently in 1997 and has won several awards.

The task force, working with the Mid-Peninsula Environmental Education Alliance, instituted recycling programs in Santa Clara and San Mateo County schools. In the end, 20 schools implemented programs with the assistance of 31 businesses. The group also published the award-winning "Recycling Partnership for Schools & Business, A How-To Handbook."

The task force hosted a number of workshops to educate local businesses about the benefits of recycling, solid waste/source reduction, and how to handle hard-to-recycle items.

In a 1996 survey of member companies, the SCVMG indicated that the following wide variety of materials were recycled:

- Batteries
- Cardboard
- Compact disks
- Computer paper
- Construction debris
- Electronic equipment/printed circuit boards
- Fluorescent tubes/ballasts
- Glass and glass bottles
- Landscape debris
- Latex gloves
- Mixed/colored paper
- Office supplies
- Onion and garlic skins
- Pallets
- Phone books
- Plastics
- Printer cartridges
- Scrap metals
- Styrofoam
- Used equipment, furniture, fixtures
- Used oil
- Vehicle batteries and tires
- Waste dross (waste painter/screen painter)
- White office paper
- Wood

Survey respondents reportedly recycled up to 97 percent of their solid waste, with the average being 51 percent. In 1995, nearly 75,000 tons of waste was recycled.

City and County of San Francisco Solid Waste Management Program

The recycling budget of San Francisco is approximately $2.5 million annually. The program offers a wide range of services to all classes of waste generators. Of particular interest is their grant program.

San Francisco Waste Prevention and Recycling Grants. For the grant cycle years 1997–98 and 1998–99, approximately $550,000 and $560,000 were awarded respectively.

In 1997–98, 18 grants were awarded ranging from $3,978 to $99,000, with an average of $30,570.

In 1998–99, 11 grants were awarded ranging from $9,460 to $128,000, with an average of $50,930.

The trend toward awarding higher grants to fewer recipients may be reflective of the increasing complexity of moving forward in reducing subsequent increments of waste.

Here are examples of grant-funded projects related to the ICI waste streams:

1997–98

- Expanding wood diversion through pallet reuse and repair.
- Increasing building material reuse by expanding community and low-income renovations.
- Improving campus recycling and capturing up to 50 percent of paper generated.
- Matching a wide range of donated equipment, furnishings, and other reusables with nonprofit organizations.

- Recovering reusable furnishings and installing them at social service agencies.
- Conducting waste assessments and follow-up visits at hotels and City College of San Francisco campuses, and instituting an in-vessel composting program at the Phelan Campus.
- Testing paper and organics separation and improving materials handling systems at city litter cleanups.
- Salvaging additional produce and other food and distributing it to meal programs.
- Diverting redwood lumber to gardens and providing zero-waste gardening education.
- Installing can crushers at all three of the city's school district production kitchens, and recycling food cans and corrugated cartons.
- Collecting usable medical equipment and supplies from San Francisco health facilities and distributing it to Latin America.

1998–99

- Conducting commercial waste assessments and team-based follow-through at small and medium-sized San Francisco businesses.
- Increasing the reuse and recycling of computer monitors, terminals, and television tubes.
- Producing veneer and lumber from felled San Francisco trees.
- Recovering reusable furnishings and installing them at social service agencies.
- Improving and expanding building deconstruction and material reuse.
- Operating a recycling and reuse drop-off center and conducting waste assessments in the Presidio.
- Salvaging additional perishable and other food and distributing it to meal programs.

Several programs received grants in both years, indicating a level of commitment by the city to keep successful programs operating.

City of Los Angeles Bureau of Sanitation Solid Resources Citywide Recycling Division

This division offers a full range of waste reduction services to its community. Of particular interest is the city's program for recycling construction, demolition, and land-clearing materials. Since 1992 the division has conducted a program to provide technical assistance, educational outreach, and best management practices for recycling of C&D material. Their outreach efforts focused on three areas:

- City departments.
- Private sector building industy and interaction with industry organizations such as the Construction Specifications Institute.
- Resources, including the Building Industry Tool Kit, and publications, such as the *Sustainable Building Reference Manual*.

The Building Industry Tool Kit is composed of the following items:

- *CalMAX*—the CIWMB materials exchange catalog/database for business reuse and recycling.
- *Recycling Resource Catalog*.
- *Construction and Demolition Waste Recycling Guide* (lists more than 115 companies).
- *Wood You Recycle?*
- *A Resource Guide to Recycled Content Construction Products* (lists more than 125 manufacturers).
- *Solid Resources Management Specification*.
- SRCRD fact sheet.

These last two publications were distributed to more than 5,000 developers, C&D contractors, architects, specifiers, and other governmental agencies.

For its excellent program related to C&D waste reduction, SRCRD has received awards from the following organizations and agencies:

- American Institute of Architects
- Construction Specifications Institute

- California Integrated Waste Management Board
- Los Angeles Productivity Commission
- Los Angeles Board of Public Works

Alameda County Waste Management Authority and Recycling Board (ACWMA)

Background. The ACWMA is a joint powers agency comprised of the following agencies:

- Alameda County
- City of Alameda
- City of Albany
- City of Berkeley
- City of Dublin
- City of Emeryville
- City of Fremont
- City of Hayward
- City of Livermore
- City of Newark
- City of Oakland
- City of Piedmont
- City of Pleasanton
- City of San Leandro
- City of Union City
- Castro Valley Sanitary District
- Ora Loma Sanitary District

The ACWMA operates in conjunction with the Alameda County Source Reduction and Recycling Board created through the passage of a ballot initiative, Measure D, in 1990. The 11-member board is comprised of six experts in the waste prevention field appointed by the county board of supervisors and five elected public officials appointed by the ACWMA.

The recycling board is funded by a surcharge on tonnage disposed at the Altamont and Vasco Road landfills, expected to generate $7.9 million during FY 1999–2000. Half of annual revenues are passed through to the member cities for their waste reduction programs.

The ACWMA is funded by a $1.50 per ton surcharge at Alameda County landfills. Other funding sources include mitigation fees of $4.52 and $4.53 per ton for waste imported from the City and County of San Francisco and other locations outside of Alameda County, respectively. Together with other miscellaneous income, ACWMA anticipates revenues of $7.5 million for FY 1999–2000.

The ACWMA operates a wide range of programs related to waste reduction of the ICI waste stream.

Alameda County Source Reduction and Recycling Board Grant Program. Funded from Measure D, the program is designed to foster reduction of materials going to the landfill.

In 1999, seven grants were awarded for a total of $651,319. Of these, six were related to ICI wastes:

1. Expansion of salvaged food-sorting operations for food banks.

2. Expansion of construction materials programs for salvage, reuse, and recycling.

3. Food waste collection and composting operations.

4. Development of small dimension lumber remilling.

5. Expansion of institutional waste diversion services.

6. Expanded utilization of recycled plastics in landscape edging products.

In 2000, the board approved 10 grants for a total of $1,015,925 and three additional grants from other funding sources. Of these, nine were related to ICI wastes:

1. Development of a tree recycling pickup and drop-off site.

2. Development of a mattress recycling facility.

3. Expansion of a computer reuse warehouse.

4. Expansion of a computer recycling project.

5. Expansion of a C&D diversion program.

6. Expansion of the second chance project for collection and resale of bulky waste items.

7. Expansion of a tire grinding and recycling facility.

8. Market development for a materials exchange facility.

9. Relocation for a materials reuse facility.

Alameda County Source Reduction and Recycling Board Revolving Loan Fund (RLF). This fund was approved and established in 1993 to provide supplemental financing to small and medium-sized businesses in Alameda County that are engaged in the source reduction and recycling industry. The RLF is one of the only funds dedicated solely to recycling and source reduction ever to be established by a local government agency in California. The RLF is jointly administered with the Materials for the Future Foundation.

The RLF has made 23 loans since its inception, for a total of $2,509,000. This amount leveraged an additional $5.7 million. To date, there is a zero loan loss rate, no delinquencies, and three loans have been repaid in full. Loans ranged from $15,000 to $200,000, with an average of approximately $109,000. The loans have been used for:

- Equipment.
- Working capital.
- Real estate.

Projects of the recipients include:

- Yard waste processing.
- Bulk bag reprocessing and recycling.
- Recovery of medical products.
- Salvage and recycling of demolition lumber.
- Tree service.
- Recycled-content plastic products.
- Oil recycling products.
- Cast glass manufacturing.
- Automated plastic recycling process.
- Manufacture of paper tubes and cores.
- Steel foundry.
- Custom plastics manufacturing.
- Custom steel foundry.
- Paper collection and processing.
- Plastic bag manufacturing.
- Office furniture from recycled material.
- Marketing green waste products.
- Wood products.

The StopWa$te Partnership. The Comprehensive Environmental Assessment Program (StopWa$te) is one of the ACWMA's business and public agency services. It has been described as a free non-regulatory technical assistance initiative. Its budget mission statement notes that the partnership:

"Provides comprehensive environmental performance assessment and improvement services focusing on source reduction, recycling, energy and water conservation, wastewater discharge reduction and efficient use of materials. Service are generally targeted to companies and institutions in Alameda County with over 75 employees." See CIWMB Publication #310-02-012, "Solid Waste Assessments: A Model for Local Government Recycling and Waste Reduction," for more information about waste auditing.

Local Government Challenges and Opportunities

As local communities strive to meet the 50 percent mandated waste reduction and to go beyond this level, increased efforts focused on the ICI waste streams will pay off.

One strategy communities could pursue is to invite the largest point source generators of waste to participate in conducting waste audits and waste reduction projects. Working with the commercial waste haulers can help identify the large generators.

However, the haulers may be fearful of losing commercial business (the most profitable sector of waste collection). Employment data may help identify large generators; local chambers of commerce can provide assistance in this task. Entering the construction and demolition process early to influence planning may prove beneficial, as does using the permit process. But communities should exercise care with waste reduction requirements, so they can avoid creating a disincentive for local development.

Communities can also apply waste reduction requirements to new and existing businesses as they carry out their regular operations. The C&D permit process could be a model; communities could use the local business license (both new applications and annual renewals) as a vehicle for requesting (or requiring) a waste reduction plan. Government agencies could use the annual budget process in the same way.

Finally, communities could identify market gaps in recycling and reuse. They could then actively recruit these types of businesses.

Tips for Replication

- If not already in place, determine the feasibility of placing a surcharge on landfilled waste to fund waste reduction efforts. The ACWMA is an example of how to use funding to accomplish local goals.
- Consider forming a business coalition like the SCVMG to work with local government.
- Make maximum use of other government and organization Web sites for technical assistance that may be available to you. Start with the CIWMB Web site at www.ciwmb.ca.gov/.

References

CIWMB Publications

Many CIWMB publications are available on the Board's Web site at: www.ciwmb.ca.gov/Publications/.

To order hard copy publications, call 1-800-CA-Waste (California only) or (916) 341-6306, or write:

California Integrated Waste Management Board
Public Affairs Office,
Publications Clearinghouse (MS-6)
1001 I Street
P.O. Box 4025 (mailing address)
Sacramento, CA 95812-4025

CIWMB Contact

Office of Local Assistance, (916) 341-6199

CIWMB Web Sites

RMDZ/R-Team: www.ciwmb.ca.gov/RMDZ/

Recycled-content product database: www.ciwmb.ca.gov/RCP/

Office paper reduction: www.ciwmb.ca.gov/BizWaste/OfficePaper/

Landscape waste reduction: www.ciwmb.ca.gov/Organics/

Waste Prevention Information Exchange: www.ciwmb.ca.gov/WPIE/

Waste Reduction Awards Program (WRAP): www.ciwmb.ca.gov/WRAP/

Credits and Disclaimer

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The energy challenge facing California is real. Every Californian needs to take immediate action to reduce energy consumption. For a list of simple ways you can reduce demand and cut your energy costs, Flex Your Power and visit www.consumerenergycenter.org/flex/index.html.

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